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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/786,001	06/04/2001	Naoyuki Tani	NITT-4	6419

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FISH & NEAVE  
1251 AVENUE OF THE AMERICAS  
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NEW YORK, NY 10020-1105

EXAMINER
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RIBAR, TRAVIS B

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 07/18/2003

11

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/786,001

Applicant(s)

TANI ET AL.

Examiner

Travis B Ribar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-7,9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-7,9 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 28.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election of claims 1-2 and 4-10 in Paper No. 10 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 1-2, 4-7, and 9-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. The term "...main component ..." in claims 1 and 6 is a term that renders the claim indefinite. The term "...main component..." is not defined by the claim, is not an art-recognized phrase, and the specification does not provide a standard for ascertaining its meaning. One of ordinary skill in the art would not be reasonably appraised of the limitations of this claim.
5. The term "...a peeling force ..." in claims 2 and 7 is a term that renders the claim indefinite. The term "...a peeling force..." is not defined by the claim, is not an art-

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recognized phrase, and the specification does not provide a standard for ascertaining its meaning. One of ordinary skill in the art would not be reasonably appraised of the limitations of this claim.

6. The term "...sufficient tackiness with respect to a workpiece..." in claims 4 and 9 is a term that renders the claim indefinite. The term "...sufficient tackiness with respect to a workpiece..." is not defined by the claim, is not an art-recognized phrase, and the specification does not provide a standard for ascertaining its meaning. One of ordinary skill in the art would not be reasonably appraised of the limitations of this claim.

7. Regarding claims 5 and 10, it is unclear from the language of the claim what the applicant means by, "the side-chain crystallizable polymer has a melting point which occurs within a temperature range narrower than about 15°C." For the purposes of this examination, this claim will be presumed to mean the polymer has a first order melt transition range of less than about 15°C. The examiner bases this interpretation on the applicant's specification.

#### ***Claims Clarification***

8. The current claims pending in this case are 1-2, 4-7, and 9-10. Claims 3 and 8 were canceled via an earlier amendment. Claim 11 was canceled in applicant's Paper Number 10.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-2 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Schmitt et al.

Schmitt et al. (WO 92/13901) was submitted by the applicant in an information disclosure statement.

Schmitt et al. discloses a tape that includes a pressure-sensitive adhesive (PSA) (page 19, line 16 to page 20, line 12), a side-chain crystallizable polymer meeting the molecular weight (page 18, line 33 to page 19, line 3; page 30, lines 19-20), structure (page 23, lines 17-19 and page 25, lines 2-7 and 27), and amount (page 23, lines 1-4) limitations of claim 1, and a tackifier (page 23, line 10) in an amount (page 38, line 15 and examples) that meets claim 1.

Schmitt et al. also teaches an adhesive that meets the requirements of claim 4 (see page 28, table 1) and teaches that the properties of the tape are easily manipulated by changing the side-chain crystallizable polymer that is used (page 27, lines 15-18). The adhesive properties appearing in claim 2 of the present invention, are properties inherent to a given material. As such, any material that fulfills the applicant's material claims fits these property claims as well. Schmitt et al. meets the material

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claims set forth by the applicant, as shown above and also teaches how to manipulate the invention that is expressly disclosed therein to obtain an adhesive with the applicant's claimed properties. Therefore even though Schmitt et al. does not refer to the adhesive properties of claim 2 in its invention, it still anticipates claim 2.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmitt et al. in view of Toshiaki et al.

Schmitt et al. is discussed above, but does not disclose that the side-chain crystallizable polymer has a melting point that meets the requirements of claim 5. Toshiaki et al. (JP 09-208924) was included by the applicant in an information disclosure statement. A computer translation of the document is provided with this action. Toshiaki et al. teaches an adhesive utilizing side-chain crystallizable polymers with the melting point the applicant claims in claim 5 (see the abstract the applicant provided) and teaches that by using such a polymer, the adhesive's conversion from a tacky state to a non-tacky state occurs much more precisely (see paragraph 28).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use side-chain crystallizable polymers such as those in Toshiaki et al.

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having a narrow melting range in the adhesive disclosed by Schmitt et al. The motivation for doing so would be to make the adhesive in Schmitt et al. convert from a tacky to a non-tacky state much more precisely. Therefore it would have been obvious to combine Toshiaki et al. with Schmitt et al. to obtain the invention as specified in claim 5.

13. Claims 6-7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmitt et al. in view of Newman et al.

Schmitt et al. is discussed above and teaches the adhesive limitations of claims 6-7 and 9 and also teaches a tape structure, but does not teach a double-sided tape structure as called for in claims 6-7 and 9. Such a structure is well-known in the art, as shown by Newman et al., which teaches a double-sided tape (column 3, lines 63-66). The advantage of a double-sided tape is that one may adhere objects to both faces of the tape.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to make the tape in Schmitt et al. a double-sided tape. The motivation for doing so would be to adhere objects to both faces of the tape. It also would have been obvious to use the adhesive shown in Schmitt et al. in the tape structure in Newman et al. The motivation for doing so would be to obtain a double-sided thermally controllable tape. Therefore it would have been obvious to combine Newman et al. with Schmitt et al. to obtain the invention as specified in claims 6-7 and 9.

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14. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmitt et al. in view of Newman et al. as applied to claims 6-7 and 9 above, and further in view of Toshiaki et al.

The combination of Schmitt et al. and Newman et al. is discussed above, but does not include the melting point limitation of claim 10.

Toshiaki et al. is discussed above and teaches an adhesive utilizing side-chain crystallizable polymers with the melting point the applicant claims in claim 10 (see the abstract the applicant provided). It teaches that by using such a polymer, the adhesive's conversion from a tacky state to a non-tacky state occurs much more precisely (see paragraph 28).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use side-chain crystallizable polymers such as those in Toshiaki et al. having a narrow melting range in the adhesive disclosed by Schmitt et al. and in turn include that adhesive in a double-sided tape. The motivation for doing so would be to make the resulting double-sided tape convert from a tacky to a non-tacky state much more precisely. Therefore it would have been obvious to combine Toshiaki et al. with Schmitt et al. and Newman et al. to obtain the invention as specified in claim 10.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis B Ribar whose telephone number is (703) 305-3140. The examiner can normally be reached on 8:30-5:00 Monday through Friday.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (703) 308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Travis B Ribar  
Examiner  
Art Unit 1711

TBR  
July 14, 2003



James J. Seidleck  
Supervisory Patent Examiner  
Technology Center 1700